

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT NO.:	6,877,162	GRANT DATE:	April 5, 2005
INVENTOR(S):	Thompson	ATTY. DOCKET NO.:	10003696-1
SERIAL NO.:	09/628,919	CONFIRMATION NO.:	5033
FILED:	July 31, 2000		
TITLE:	METHOD AND SYSTEM FOR EXTENDABLE CLASS-BASED SHARED DATA-TYPES		

**REQUEST FOR ISSUANCE OF
CERTIFICATE OF CORRECTION**
COMMISSIONER FOR PATENTS
ALEXANDRIA, VA 22313-1450

Sir:

The assignee of the entire interest in the above-identified patent respectfully requests that a Certificate of Correction be issued in accordance with 37 CFR 1.322.

Enclosed herewith is a complete copy of Form PTO 1050 (Rev. 3-82) describing the various errors involved in the above patent. The errors that occurred under Rule 322, appear in Column and Line format.

An earlier Request for Issuance of Certificate of Correction for this patent, requesting the same correction as the present Request, was submitted to the USPTO on August 16, 2007 (Copy attached as Exhibit A.)

This earlier Request was denied by the USPTO in a response received by the patent owner on October 15, 2007 (Copy attached as Exhibit B). This response requested more supporting data.

The corrections requested are to claims 13 and 14 of the patent. These claims correspond to claims 36 and 37 of the application. Claims 36 and 37 were renumbered by the Examiner after allowance.

Claim 36 and 37 of the application were first presented in an amendment mailed May 28, 2004 (Copy attached as Exhibit C). Claims 36 and 37 were each dependent upon application claim 32, an independent claim also first presented in the May 28, 2004 amendment. (Claim 32 was renumbered after allowance and corresponds to claim 10 of the patent.)

Claim 36 and 37 appear as previously presented claims in an after final amendment mailed October 26, 2004 (Copy attached as Exhibit D). Claim 32 was amended in this amendment.

It will be seen from comparison of the language of claim 32, as amended in the October 26, 2004 amendment, to claim 10 of the issued patent (Copy of patent claims attached as Exhibit E) that they are identical. Thus it is clear that independent claim 10 of the patent corresponds to independent claim 32 of the application.

It will also be seen from a comparison of the claim language that claims 36 and 37 of the application correspond identically to patent claims 13 and 14.

Since application claims 36 and 37 (which are renumbered as patent claims 13 and 14) were each dependent upon application claim 32 (which is renumbered as independent patent claim 10) it follows that patent claims 13 and 14 should each be dependent upon independent patent claim 10, not patent claim 12.

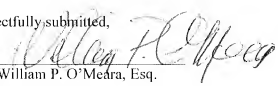
The requested Certificate of Correction simply makes this obvious correction to the dependencies of claims 13 and 14.

Issuance of a Certificate of Correction to correct these errors is therefore respectfully requested.

We shall appreciate your returning to us one executed copy of this Certificate of Correction for attachment to our Letters patent.

Respectfully submitted,

By


William P. O'Meara, Esq.

Reg. No. 29,962

Hewlett-Packard Company

Legal Department

P.O. Box 272400 MS 35

Ft. Collins, CO 80528-9599

Ph. No. (970) 898-3886

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 6,877,162
APPLICATION NO.: 09/628,919
ISSUE DATE : April 5, 2005
INVENTOR(S) : Jeffrey B. Thompson

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE CLAIMS

Claim 13, Column 6, Line 60, delete "claim 12" and insert therefor --claim 10--

Claim 14, Column 6, Line 62, delete "claim 12" and insert therefor --claim 10--

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Hewlett-Packard Company
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT NO.: 6,877,162 GRANT DATE: April 5, 2005
INVENTOR(S): Jeffrey B. Thompson ATTY. DOCKET NO.: 10003696-1
SERIAL NO.: 09/628,919 CONFIRMATION NO.: 5033
FILED: July 31, 2000
TITLE: METHOD AND SYSTEM FOR EXTENDABLE
CLASS-BASED SHARED DATA-TYPES

**REQUEST FOR ISSUANCE OF
CERTIFICATE OF CORRECTION**

**COMMISSIONER FOR PATENTS
ALEXANDRIA, VA 22313-1450**

Sir:

The assignee of the entire interest in the above-identified patent respectfully requests that a Certificate of Correction be issued in accordance with 37 CFR 1.322.


Enclosed herewith is a complete copy of Form PTO 1050 (Rev. 3-82) describing the various errors involved in the above patent. The errors that occurred under Rule 322, appear in Column and Line format.

Issuance of a Certificate of Correction to correct these errors is therefore respectfully requested.

We shall appreciate your returning to us one executed copy of this Certificate of Correction for attachment to our Letters patent.

Respectfully submitted,

By


William P. O'Meara, Esq.

Reg. No. 29,962

Hewlett-Packard Company
Legal Department
P.O. Box 272400 MS 35
Ft. Collins, CO 80528-9599
Ph. No. (970) 898-3886

EXHIBIT

A

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO. : 6,877,162
APPLICATION NO.: 09/628,919
ISSUE DATE : April 5, 2005
INVENTOR(S) : Jeffrey B. Thompson

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE CLAIMS

Claim 13, Column 6, line 60, delete "claim 12" and insert therefor --claim 10--

Claim 14, Column 6, line 62, delete "claim 12" and insert therefor --claim 10--

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Hewlett-Packard Co.
P.O. Box 272400 MS35
Ft. Collins, Colorado 80528-9599

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY OF COMMERCE AND
COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, DC 20231

Patent No. : 96067 ✓ 6877162
Inventor(s) : Jeffrey B. Thompson
Issued : 4/5/2005
Title : METHOD AND SYSTEM FOR EXTENFABLE CLASS-BASED SHARED
DATA-TYPES
Atty.doc./File No.

RECEIVED

By IPA, All Data Verified at 5:36 pm, Oct 15, 2007

Request for Certificates of Correction

Consideration has been given to your request for the issuance of a Certificate of Correction, for the above – identified patent under the provisions of CFR 1.322.

Inspection of the application for the patent reveals that claim 13 & 14 is printed in accordance with the record, please show more supporting data. Therefore being no fault on the Patent and Trademark Office, It has no authority to issue a certificate of correction under the provision of 1.322.

In view of the forgoing, your request in this matter, is hereby denied.

Future written correspondence concerning this matter should be filed and directed to Decisions & Certificates of Correction Branch.

Henry Randall
Cecelia Newman
Decisions & Certificates
of Correction Branch
(703) 308-9390 Ext. 108

HEWLETT-PACKARD COMPANY
P.O. BOX 272400
FT. COLLINS, CO 80528-9599

HR/CBN

EXHIBIT

B

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Jeffrey B. Thompson

Confirmation No.: 5033

Application No.: 09/628,919

Examiner: S.X. Lao

Filing Date: July 31, 2000

Group Art Unit: 2126

Title: METHOD AND SYSTEM FOR EXTENDABLE CLASS-BASED SHARED DATA-TYPES

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

- (X) Response/Amendment () Petition to extend time to respond
() New fee as calculated below () Supplemental Declaration
(X) No additional fee
() Other: _____ (fee \$ _____)

CLAIMS AS AMENDED BY OTHER THAN A SMALL ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS	17	MINUS	20	= 0	X \$18	\$ 0
INDEP. CLAIMS	3	MINUS	3	= 0	X \$86	\$ 0
[] FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM					+ \$290	\$ 0
EXTENSION FEE	1ST MONTH \$110.00	2ND MONTH \$420.00	3RD MONTH \$950.00	4TH MONTH \$1480.00		\$ 0
					OTHER FEES	\$
					TOTAL ADDITIONAL FEE FOR THIS AMENDMENT	\$ 0

Charge \$ 0 to Deposit Account 08-2025. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

"Express Mail" label no. EV482736722US

Date of Deposit May 29, 2004

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, Alexandria, VA 22313-1450.

By

Typed Name: Carrie Wilson

Respectfully submitted,

Jeffrey B. Thompson

By

Christopher S.L. Crawford

Attorney/Agent for Applicant(s)

Reg. No. 51,586

Date: May 28, 2004

Telephone No.: (214) 855-8378

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

Docket No.: 10003696-1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Jeffrey B. Thompson

Application No.: 09/628,919

Art Unit: 2126

Filed: July 31, 2000

Examiner: S. X. Lao

For: METHOD AND SYSTEM FOR EXTENDABLE
CLASS-BASED SHARED DATA-TYPES

AMENDMENT

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INTRODUCTORY COMMENTS

In response to the Office Action dated March 10, 2004, the Examiner is requested to reconsider the application in view of the amendments and remarks below.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 5 of this paper.

AMENDMENTS TO THE CLAIMS

1-20. (Cancelled)

21. (New) A method of communicating a serialized object in a computer network, comprising:

defining first base-classes, wherein each base-class of said first base-classes includes an additional-properties portion for extensibility of the respective base-class;

defining a second class that inherits from one of said first base-classes, wherein said defining a second class includes defining an additional-property element within said additional-properties portion of said one of said first base-classes;

instantiating a first object of said second class;

serializing said first object;

communicating said serialized first object between first and second systems within said computer network; and

creating a second object on said second system as an instance of said one of said first base-classes, wherein said creating omits processing said additional-property element of said additional-properties portion within said serialized first object.

22. (New) The method of claim 21 wherein a catalog of first base-classes is accessible by said first and second systems.

23. (New) The method of claim 21 wherein said second class is defined on said first system and is not defined on said second system.

24. (New) The method of claim 21 wherein said second class comprises a type identifier.

25. (New) The method of claim 24 wherein said creating a second object comprises:

identifying said one of said first base-classes using said type identifier.

26. (New) The method of claim 21 wherein said additional-property element comprises a name-value pair.

27. (New) A computer system, comprising:

a first system including first base-class definitions, wherein each base-class definition comprises an additional-properties portion for extensibility of the respective base-class definition; and

a second system including said first base-class definitions and a second class definition that inherits from one of said first base-class definitions and that comprises an additional-property element within said additional-properties portion;

wherein said second system communicates serializations of objects instantiated according to said second class definition to said first system and said first system creates objects as instances of said one of said first base-class definitions by omitting processing of said additional-property element of said additional-properties portion within said serializations.

28. (New) The computer system of claim 27 wherein said second class definition is not defined on said first system.

29. (New) The computer system of claim 27 wherein said second class definition comprises a type identifier.

30. (New) The computer system of claim 29 wherein said first system identifies said one of said first base-class definitions by analyzing said type identifier.

31. (New) The computer system of claim 29 wherein said additional-property element comprises a name-value pair.

32. (New) A method, comprising:

serializing a first object of a first class on a first system, said first class inheriting from a second class that comprises an additional-properties portion, said first class defining an additional-property element within said additional-properties portion;

communicating said serialized first object to a second system that does not comprise a definition of said first class; and

creating a second object on said second system using said serialized first object, said second object being an instance of said second class, said creating omitting processing of said additional property element within said serialized first object.

33. (New) The method of claim 32 wherein said first class comprises a type identifier.

34. (New) The method of claim 33 wherein said creating comprises:
identifying said second class using said type identifier.

35. (New) The method of claim 32 wherein said additional-property comprises a name-value pair.

36. (New) The method of claim 32 wherein said first system is a client system and said second system is a server system.

37. (New) The method of claim 32 further comprising:
accessing a definition of said second class from a class definition catalog.

REMARKS**Claim Rejections**

Claims 1-4, 8, and 12-14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,526,457 to Birze (hereinafter Birze).

Claims 5-7, 9-11, and 15-20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Birze in view of U.S. Patent No. 5,615,400 to Cowsar et al (hereinafter Cowsar).

Applicant has cancelled claims 1-20 without prejudice. Accordingly, the rejection of these claims is not addressed herein.

New Claims

Applicant has added new claims 21-37. These claims are supported by, inter alia, pages 3-7 of the original application. No new matter has been entered.

Claim 21 recites, in part:

- defining first base-classes, wherein each base-class of said first base-classes includes an additional-properties portion for extensibility of the respective base-class;
- defining a second class that inherits from one of said first base-classes, wherein said defining a second class includes defining an additional-property element within said additional-properties portion of said one of said first base-classes;
- instantiating a first object of said second class;
- serializing said first object;
- communicating said serialized first object between first and second systems within said computer network; and
- creating a second object on said second system as an instance of said one of said first base-classes, wherein said creating omits processing said additional-property element of said additional-properties portion within said serialized first object.

Claim 27 recites, in part:

a first system including first base-class definitions, wherein each base-class definition comprises an additional-properties portion for extensibility of the respective base-class definition; and

a second system including said first base-class definitions and a second class definition that inherits from one of said first base-class definitions and that comprises an additional-property element within said additional-properties portion;

wherein said second system communicates serializations of objects instantiated according to said second class definition to said first system and said first system creates objects as instances of said one of said first base-class definitions by omitting processing of said additional-property element of said additional-properties portion within said serializations.

Claim 32 recites, in part:

serializing a first object of a first class on a first system, said first class inheriting from a second class that comprises an additional-properties portion, said first class defining an additional-property element within said additional-properties portion;

communicating said serialized first object to a second system that does not comprise a definition of said first class; and

creating a second object on said second system using said serialized first object, said second object being an instance of said second class, said creating omitting processing of said additional property element within said serialized first object.

Serialization refers to the conversion of an object to a data stream of byte values in order to prepare it for transmission and/or storage. Because known serialization mechanisms involve the creation of a byte stream to represent an object, the inheritance of a first class from a second class is not discernable from the byte stream unless the first class is defined on both the sending and receiving systems. Accordingly, "versioning" problems may arise when new classes are defined on a subset of systems within a computer network. *See* application, pages 1-2.

The subject matter of claims 21, 27, and 32 enables such "versioning" problems to be addressed. Specifically, claims 21, 27, and 32 recite "an additional-properties portion" for extensibility. By explicitly defining the additional-properties portion within a base-class, classes inheriting from the base-classes may be defined on a subset of systems without requiring modification of the serialization scheme. Specifically, the additional-property elements may be included within the additional-properties portion. Because the additional-properties portion exists within the base-classes and the inheriting classes, the entire byte stream generated by a serialized object can be recognized and correlated to a base-class even if the data within the additional-properties portion is not recognized.

The applied references do not teach or suggest serializing an object of a class containing an additional-properties portion in the manner recited by claims 21, 27, and 32. Specifically, Birze merely discloses a collection of base-classes having “pure virtual member functions” to abstractly model operating system functions. *See* col. 4, lines 23-25 and col. 5, lines 1-9 of Birze. A virtual member function is a well-known object oriented programming construct. A virtual member function is merely a method (function) interface definition of a class to be implemented by classes inheriting from the abstract base-class. That is, a virtual member function is the “prototype” of the function and the inheriting classes provide the actual code that performs the function. A virtual member function does not explicitly provide space within a class for extensibility via additional-properties or variables that are not defined in the base-class. Moreover, Birze does not teach or suggest serializing an object having an additional-property within an additional-properties portion defined by the object’s class.

Cowsar is merely directed to a system that involves a catalog of function sets. *See* Abstract of Cowsar. The catalog of function sets enables a client application to call particular functions even when a library or set of functions is modified. Cowsar is not directed to serializing objects of classes having an additional-properties portion in the manner recited by claims 21, 27, and 32.

Accordingly, the applied references do not teach or suggest each and every limitation of claims 21, 27, and 32. Claims 22-26, 28-31, and 33-37 respectively depend from claims 21, 27, and 32 and, hence, inherit all limitations of their base claim. Therefore, claims 21-37 are submitted to be patentable over the applied references.

Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-2025, under Order No. 10003696-1 from which the undersigned is authorized to draw.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail, Airbill No. EV482736722US in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: May 28, 2004

Typed Name: Carrie Wilson

Signature: 

Respectfully submitted,

By 

Christopher S.L. Crawford

Reg. No.: 41,586

Date: May 28, 2004

Telephone No. (214) 855-8378

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Jeffrey B. Thompson

Confirmation No.: 5033

Application No.: 09/620,919

Examiner: S.X. Lao

Filing Date: July 31, 2000

Group Art Unit: 2126

Title: METHOD AND SYSTEM FOR EXTENDABLE CLASS-BASED SHARED DATA-TYPES

Mail Stop AF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

- (X) Response/Amendment () Petition to extend time to respond
() New fee as calculated below () Supplemental Declaration
(X) No additional fee
() Other: _____ (fee \$ _____)

CLAIMS AS AMENDED BY OTHER THAN A SMALL ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS	14	MINUS	20	= 0	X \$18	\$ 0
INDEP. CLAIMS	3	MINUS	3	= 0	X \$88	\$ 0
[] FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM					+ \$300	\$ 0
EXTENSION FEE	1ST MONTH \$110.00	2ND MONTH \$430.00	3RD MONTH \$980.00	4TH MONTH \$1530.00		\$ 0
OTHER FEES						\$
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$ 0

Charge \$ 0 to Deposit Account 08-2025. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

"Express Mail" label no. EV482738198US

Date of Deposit Oct. 26, 2004

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, Alexandria, VA 22313-1450.

By Phyllis Ewing
Typed Name: Phyllis Ewing

Respectfully submitted,

Jeffrey B. Thompson

By Christopher S.L. Crawford
Christopher S.L. Crawford

Attorney/Agent for Applicant(s)
Reg. No. 51,586

Date: Oct. 26, 2004

Telephone No.: (214) 855-8378

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, Colorado 80527-2400

Docket No.: 10003696-1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Jeffrey B. Thompson

Application No.: 09/628,919

Art Unit: 2126

Filed: July 31, 2000

Examiner: S. X. Lao

For: METHOD AND SYSTEM FOR EXTENDABLE
CLASS-BASED SHARED DATA-TYPES

AMENDMENT AFTER FINAL ACTION

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INTRODUCTORY COMMENTS

In response to the Office Action dated September 8, 2004, the Examiner is requested to reconsider the application in view of the amendments and remarks below.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 5 of this paper.

AMENDMENTS TO THE CLAIMS

1-20. (Cancelled)

21. (Currently Amended) A method of communicating a serialized object in a computer network, comprising:

defining first base-classes, wherein each base-class of said first base-classes includes an additional-properties portion for extensibility of the respective base-class;

defining a second class that inherits from one of said first base-classes, wherein said defining a second class includes defining an additional-property element within said additional-properties portion of said one of said first base-classes, wherein said additional-property element comprises a name-value pair;

instantiating a first object of said second class;

serializing said first object;

communicating said serialized first object between first and second systems within said computer network; and

creating a second object on said second system as an instance of said one of said first base-classes, wherein said creating omits processing said additional-property element of said additional-properties portion within said serialized first object.

22. (Previously Presented) The method of claim 21 wherein a catalog of first base-classes is accessible by said first and second systems.

23. (Previously Presented) The method of claim 21 wherein said second class is defined on said first system and is not defined on said second system.

24. (Previously Presented) The method of claim 21 wherein said second class comprises a type identifier.

25. (Previously Presented) The method of claim 24 wherein said creating a second object comprises:

identifying said one of said first base-classes using said type identifier.

26. (Cancelled)

27. (Currently Amended) A computer system, comprising:

a first system including first base-class definitions, wherein each base-class definition comprises an additional-properties portion for extensibility of the respective base-class definition; and

a second system including said first base-class definitions and a second class definition that inherits from one of said first base-class definitions and that comprises an additional-property element within said additional-properties portion, wherein said additional-property element comprises a name-value pair;

wherein said second system communicates serializations of objects instantiated according to said second class definition to said first system and said first system creates objects as instances of said one of said first base-class definitions by omitting processing of said additional-property element of said additional-properties portion within said serializations.

28. (Previously Presented) The computer system of claim 27 wherein said second class definition is not defined on said first system.

29. (Previously Presented) The computer system of claim 27 wherein said second class definition comprises a type identifier.

30. (Previously Presented) The computer system of claim 29 wherein said first system identifies said one of said first base-class definitions by analyzing said type identifier.

31. (Cancelled)

32. (Currently Amended) A method, comprising:

serializing a first object of a first class on a first system, said first class inheriting from a second class that comprises an additional-properties portion, said first class defining an additional-property element within said additional-properties portion, wherein said additional-property comprises a name-value pair;

communicating said serialized first object to a second system that does not comprise a definition of said first class; and

creating a second object on said second system using said serialized first object, said second object being an instance of said second class, said creating omitting processing of said additional property element within said serialized first object.

33. (Previously Presented) The method of claim 32 wherein said first class comprises a type identifier.

34. (Previously Presented) The method of claim 33 wherein said creating comprises:
identifying said second class using said type identifier.

35. (Cancelled)

36. (Previously Presented) The method of claim 32 wherein said first system is a client system and said second system is a server system.

37. (Previously Presented) The method of claim 32 further comprising:
accessing a definition of said second class from a class definition catalog.

REMARKS

Claims 21, 23, 27, 28, 32, and 36 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,272,521 to Jablonski et al. Claims 22, 24, 25, 29, 30, 33, 34, and 37 are rejected as being unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,272,521 to Jablonski et al. in view of U.S. Patent No. 5,615,400 to Cowsar et al.

Claims 26, 31, and 35 are objected to as being allowable while depending from a rejected claim.

Applicant has amended independent claims 21, 27, and 32 to include the limitations previously recited in claims 26, 31, and 35 (which are now cancelled). Accordingly, claims 21, 27, and 32 are patentable. Claims 22-25, 28-30, 33-34, 36, and 37 respectively depend from base claims 21, 27, and 32 and, hence, inherit all limitations of their base claim. Therefore, the pending claims are in condition for allowance.

Conclusion

In view of the above amendment, Applicant believes the pending application is in condition for allowance. Applicant believes no fee is due with this response. However, if a fee is due, please charge Deposit Account No. 08-2025, under Order No. 10003696-1 from which the undersigned is authorized to draw.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as Express Mail, Airbill No. EV482738198US in an envelope addressed to: MS AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: October 26, 2004

Typed Name: Phyllis Ewing

Signature: 

Respectfully submitted,

By 

Christopher S. Crawford

Reg. No.: 51,586

Date: October 26, 2004

Telephone No. (214) 855-8378

5

the newer version from refusing to accept the unknown object. By providing an additional properties portion 16 of data-types 10, the new proposal object can be defined in terms of a known base class 12. In the example of the proposal data-type 10, this data-type 10 might have a known base class 12 having the same general properties as one of the other notes data-types 10. The new attributes that distinguish the proposal type from other data-types 10 of the notes class would be located in the additional properties portion 16 of the data-type 10. The type identifier 14 would instruct recipient clients 20 of the base class 12 characteristics of this new data-type 10. Using the type identifier 14 in conjunction with a catalog of known base types 12, the older client 20 or server 30 can recognize certain common properties or fields present in the new object. The recipient client 20 may be designed to process the new data-type 10 to the extent that it recognizes the fields or properties of the base class 10. A server 30 may be designed to process the new data-type 10 as any other notes data-type 10.

In another embodiment, similar data-types 10 might be initially designed having certain generic base classes 12, along with additional attributes 16. New data-types 10 added in later versions would have the option of not only adding additional information to existing base classes 12, but could also take away original additional properties 16 to the extent that the new data-type 10 does not use them. In the example above, these three data-types 10 might all have the same base class 12 pertaining to notes. The additional properties portion 16 of each data-type 10 may define the particular nature of each of the original three types of notes. By including additional properties 16 in the initial data-types 10, the system creates a way for the older versions to recognize certain characteristics of the new object.

Although the present invention has been described in detail with respect to certain embodiments thereof, variations are possible. The present invention may be embodied in other specific forms without departing from the essential spirit or attributes thereof. By way of example, the system has been described particularly with respect to Java programming and to specific illustrations. One skilled in the art will recognize that the system applies to all forms of object-oriented programming and to various implementations. It is desired that the embodiments described herein be considered in all respects as illustrative, not restrictive, and that reference be made to the appended claims for determining the scope of the invention.

What is claimed is:

1. A method of communicating a serialized object in a computer network, comprising:

defining first base-classes, wherein each base-class of said first base-classes includes an additional-properties portion for extensibility of the respective base-class;

defining a second class that inherits from one of said first base-classes, wherein said defining a second class includes defining an additional-property element within said additional-properties portion of said one of said first base-classes, wherein said additional-property element comprises a name-value pair;

instantiating a first object of said second class;

serializing said first object;

communicating said serialized first object between first and second systems within said computer network; and

creating a second object on said second system as an instance of said one of said first base-classes, wherein said creating omits processing said additional-property

6

element of said additional-properties portion within said serialized first object.

2. The method of claim 1 wherein a catalog of first base-classes is accessible by said first and second systems.

3. The method of claim 1 wherein said second class is defined on said first system and is not defined on said second system.

4. The method of claim 1 wherein said second class comprises a type identifier.

5. The method of claim 4 wherein said creating a second object comprises:

identifying said one of said first base-classes using said type identifier.

6. A computer system, comprising:

a first system including first base-class definitions, wherein each base-class definition comprises an additional-properties portion for extensibility of the respective base-class definition; and

a second system including said first base-class definitions and a second class definition that inherits from one of said first base-class definitions and that comprises an additional-property element within said additional-properties portion, wherein said additional-property element comprises a name-value pair;

wherein said second system communicates serializations of objects instantiated according to said second class definition to said first system and said first system creates objects as instances of said one of said first base-class definitions by omitting processing of said additional-property element of said additional-properties portion within said serializations.

7. The computer system of claim 6 wherein said second class definition is not defined on said first system.

8. The computer system of claim 6 wherein said second class definition comprises a type identifier.

9. The computer system of claim 8 wherein said first system identifies said one of said first base-class definitions by analyzing said type identifier.

10. A method, comprising:

serializing a first object of a first class on a first system, said first class inheriting from a second class that comprises an additional-properties portion, said first class defining an additional-property element within said additional-properties portion, wherein said additional-property element comprises a name-value pair;

communicating said serialized first object to a second system that does not comprise a definition of said first class; and

creating a second object on said second system using said serialized first object, said second object being an instance of said second class, said creating omitting processing of said additional-property element within said serialized first object.

11. The method of claim 10 wherein said first class comprises a type identifier.

12. The method of claim 11 wherein said creating comprises:

identifying said second class using said type identifier.

13. The method of claim 12 wherein said first system is a client system and said second system is a server system.

14. The method of claim 12 further comprising:

accessing a definition of said second class from a class definition catalog.

* * * * *

EXHIBIT

E